# Lesson 4: Don't pay for buzz words



- Through time, acquirers have always found ways of justifying paying for premiums over estimated value by using buzz words - synergy in the 1980s, strategic considerations in the 1990s and real options in this decade.
- While all of these can have value, the onus should be on those pushing for the acquisitions to show that they do and not on those pushing against them to show that they do not.

# Test 5: Comparables and Exit Multiples



- Now assume that you are told that an analysis of other acquisitions reveals that acquirers have been willing to pay 5 times EBIT.. Given that your target firm has EBIT of $ 20 million, would you be willing to pay $ 100 million for the acquisition?
- What if I estimate the terminal value using an exit multiple of 5 times EBIT?
- As an additional input, your investment banker tells you that the acquisition is accretive. (Your PE ratio is 20 whereas the PE ratio of the target is only 10… Therefore, you will get a jump in earnings per share after the acquisition…)

# Biased samples = Poor results



- Biased samples yield biased results. Basing what you pay on what other acquirers have paid is a recipe for disaster. After all, we know that acquirer,  on average, pay too much for acquisitions. By matching their prices, we risk replicating their mistakes.
- Even when we use the pricing metrics of other firms in the sector, we may be basing the prices we pay on firms that are not truly comparable.
- When we use exit multiples, we are assuming that what the market is paying for comparable companies today is what it will continue to pay in the future.

# Lesson 5: Don't be a lemming…



- All too often, acquisitions are justified by using one of the following two arguments:
  - Every one else in your sector is doing acquisitions. You have to do the same to survive.
  - The value of a target firm is based upon what others have paid on acquisitions, which may be much higher than what your estimate of value for the firm is.
- With the right set of comparable firms, you can justify almost any price.
- EPS accretion is a meaningless measure. After all, buying an company with a PE lower than yours will lead mathematically to EPS accretion.

# Test 6: The CEO really wants to do this… or there are competitive pressures…



- Now assume that you know that the CEO of the acquiring firm really, really wants to do this acquisition and that the investment bankers on both sides have produced fairness opinions that indicate that the firm is worth $ 100 million. Would you be willing to go along?

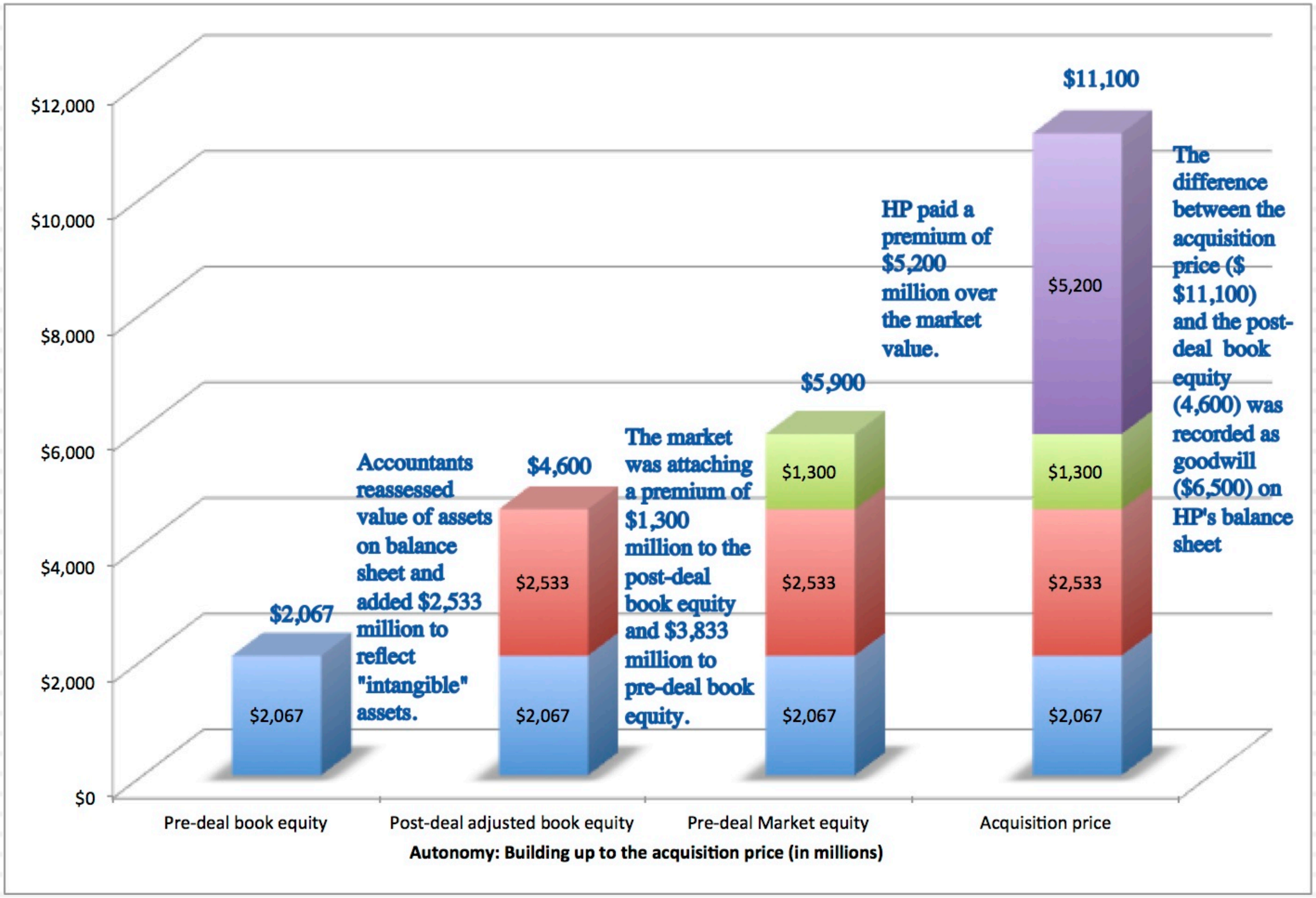
- Now assume that you are told that your competitors are all doing acquisitions and that if you don't do them, you will be at a disadvantage? Would you be willing to go along?

# Lesson 6: Don't let egos or investment bankers get the better of common sense…



- If you define your objective in a bidding war as winning the auction at any cost, you will win. But beware the winner's curse!
- The premiums paid on acquisitions often have nothing to do with synergy, control or strategic considerations (though they may be provided as the reasons). They may just reflect the egos of the CEOs of the acquiring firms. There is evidence that "over confident" CEOs are more likely to make acquisitions and that they leave a trail across the firms that they run.
- Pre-emptive or defensive acquisitions, where you over pay, either because everyone else is overpaying or because you are afraid that you will be left behind if you don't acquire are dangerous. If the only way you can stay competitive in a business is by making bad investments, it may be best to think about getting out of the business.

# To illustrate: A bad deal is made, and justified by accountants & bankers

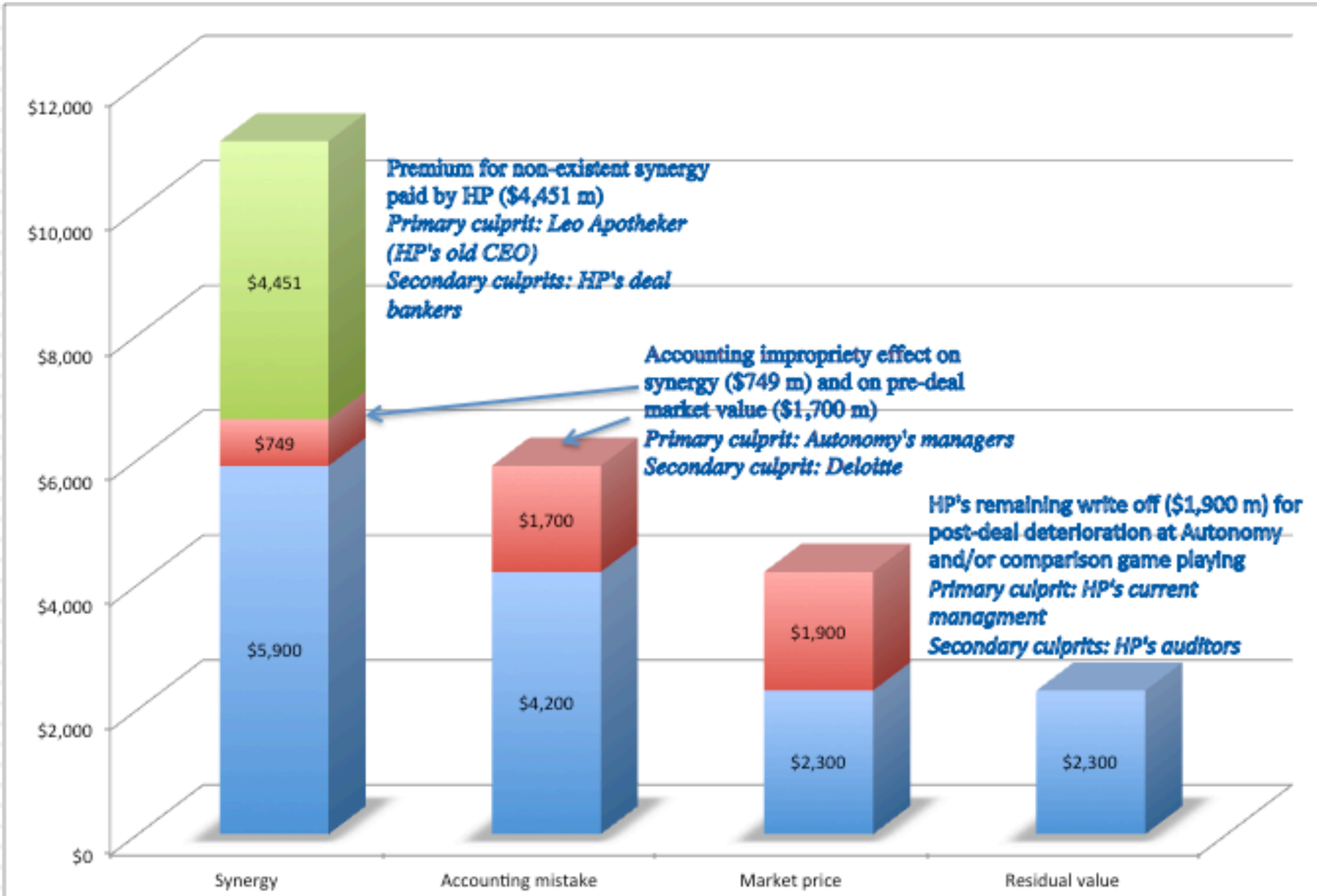


# The CEO steps in… and digs a hole…



- Leo Apotheker was the CEO of HP at the time of the deal, brought in to replace Mark Hurd, the previous CEO who was forced to resign because of a "sex" scandal.
- In the face of almost universal feeling that HP had paid too much for Autonomy, Mr. Apotheker addressing a conference at the time of the deal: "We have a **pretty rigorous process inside H.P.** that we follow for **all our acquisitions**, which is a **D.C.F.-based model**," he said, in a reference to discounted cash flow, a standard valuation methodology. "And we try to take a **very conservative view**."
- Apotheker added, "Just to make sure everybody understands, Autonomy will be, on Day 1, **accretive to H.P**….. "**Just take it from us**. We did that analysis at **great length, in great detail**, and we feel that we paid a **very fair price** for Autonomy. And it will give a **great return to our shareholders**.

# A year later… HP admits a mistake…and explains it…



# Test 7: Is it hopeless?

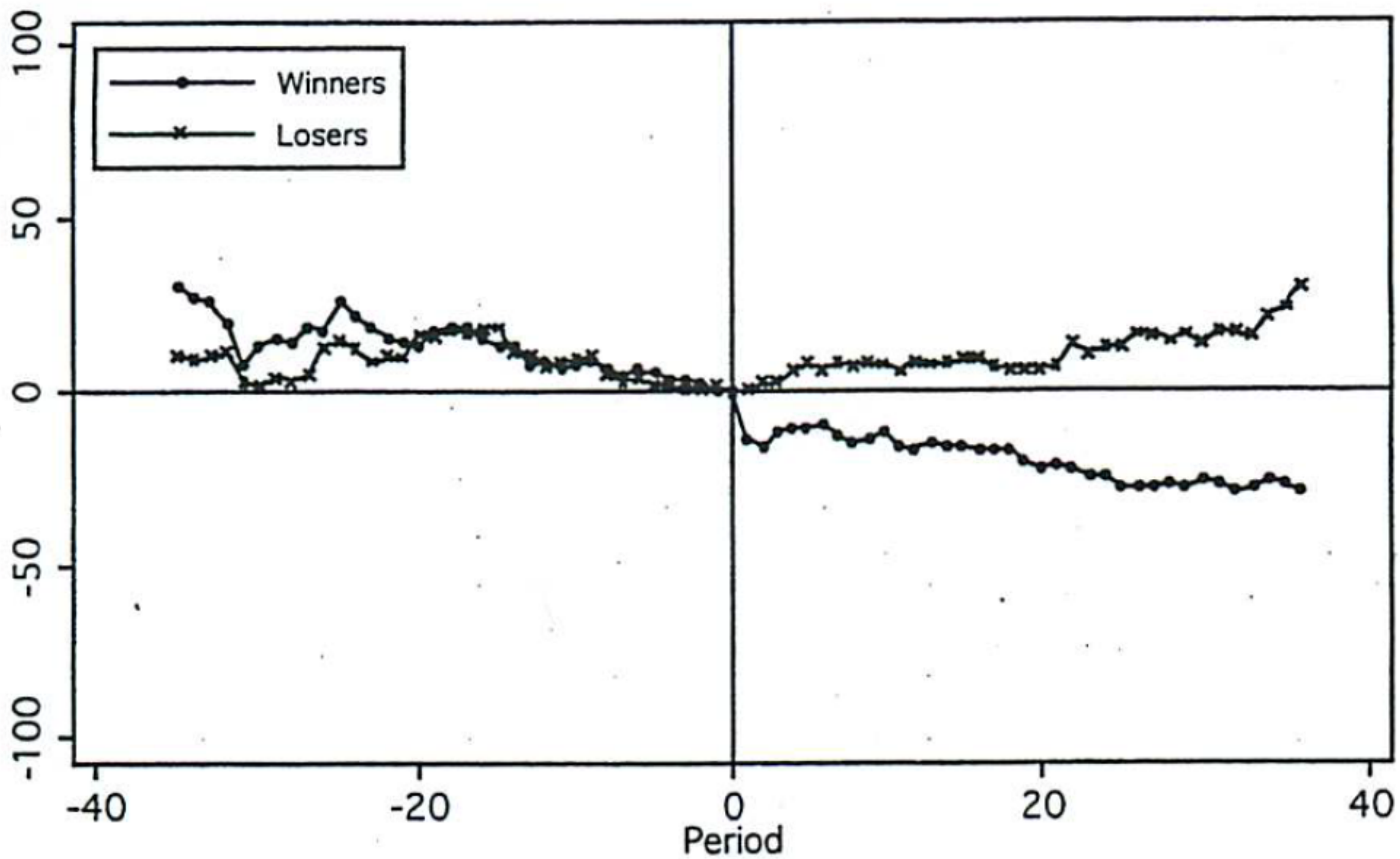


- The odds seem to be clearly weighted against success in acquisitions. If you were to create a strategy to grow, based upon acquisitions, which of the following offers your best chance of success?

| This | Or this |
|---|---|
| Sole Bidder | Bidding War |
| Public target | Private target |
| Pay with cash | Pay with stock |
| Small target | Large target |
| Cost synergies | Growth synergies |

# Better to lose a bidding war than to win one…



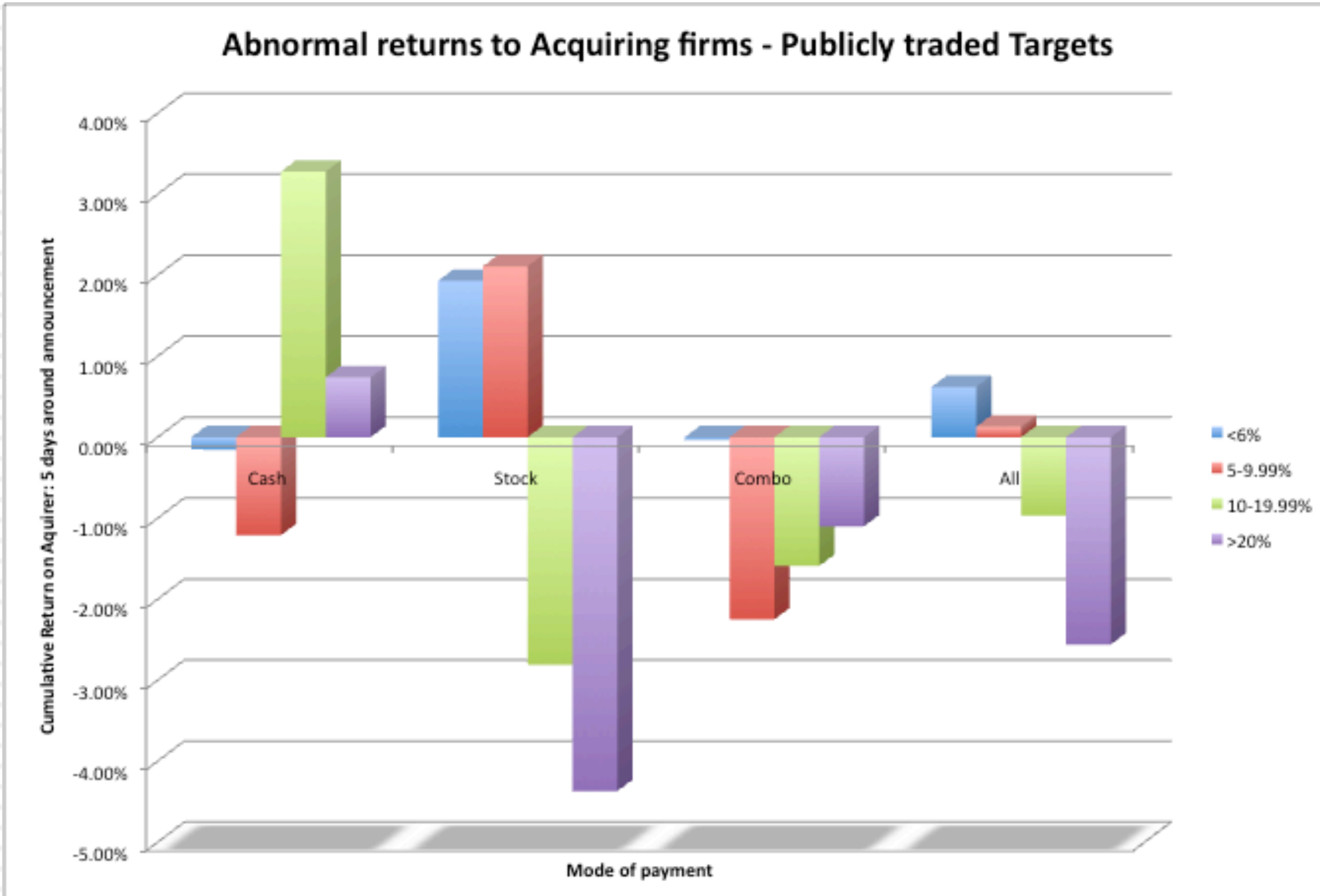



(a) Market-adjusted CARs

Returns in the 40 months before & after bidding war
Source: Malmendier, Moretti & Peters (2011)

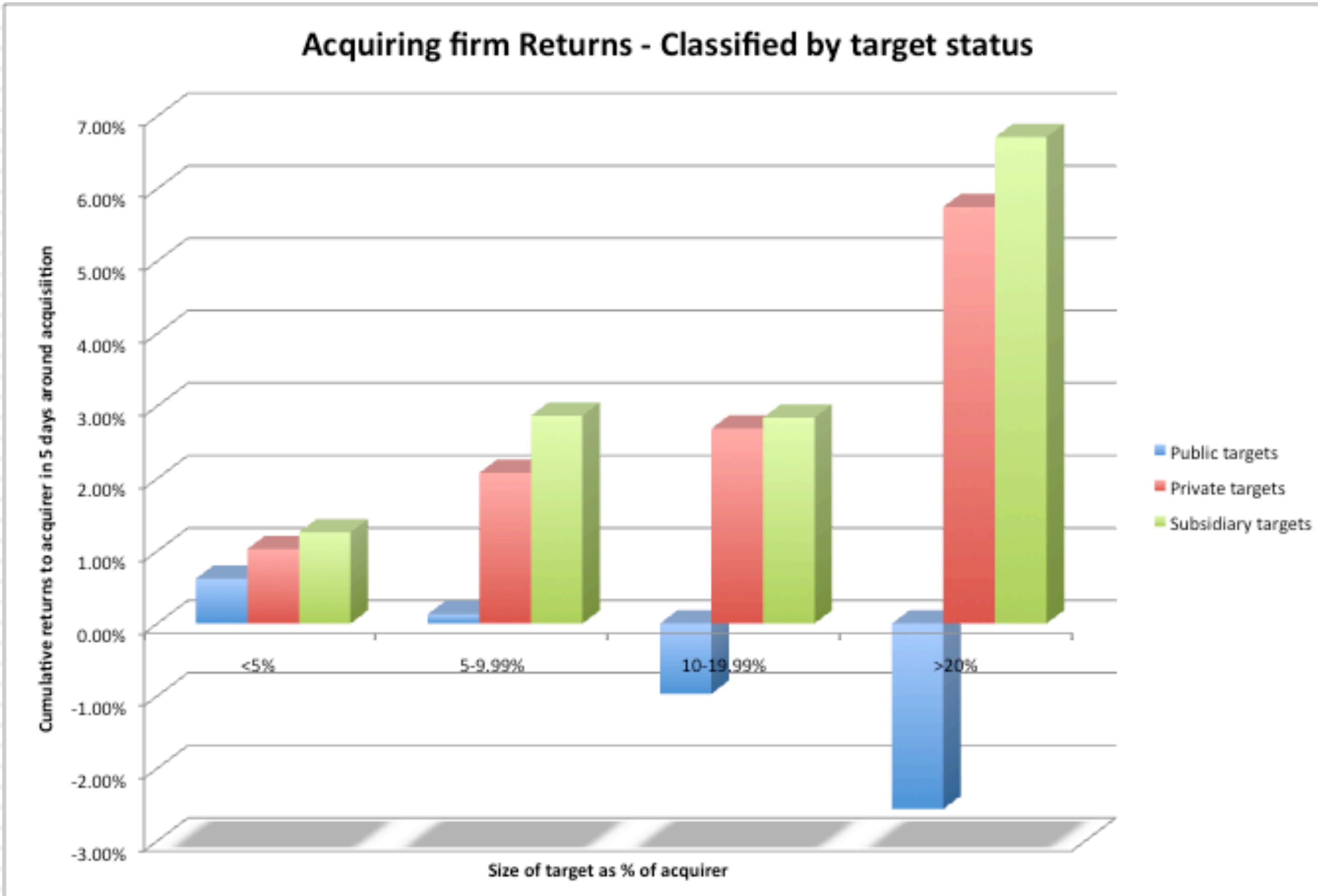
# You are better off buying small rather than large targets… with cash rather than stock





# And focusing on private firms and subsidiaries, rather than public firms…



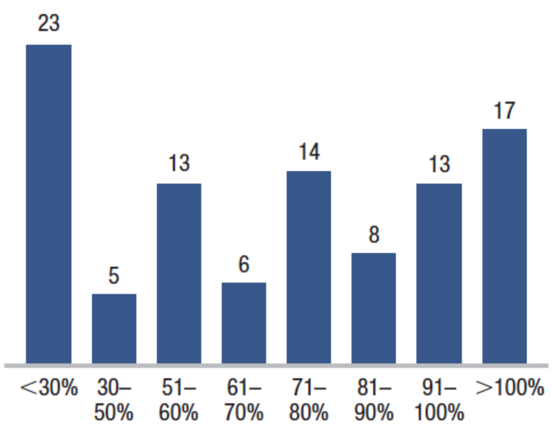


# Growth vs Cost Synergies



**Top-line trouble: 70 percent of mergers failed to achieve expected revenue synergies**

Mergers achieving stated percentage of expected revenue synergies, percent $N = 77$



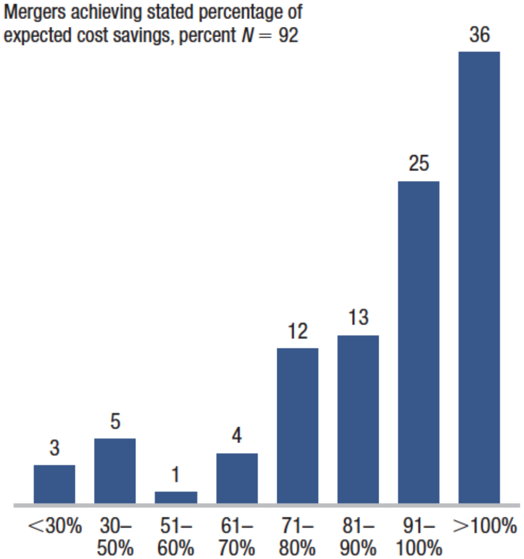

Typical sources of estimation error

- Ignoring or underestimating customer losses (typically 2% to 5%) that result from the integration
- Assuming growth or share targets out of line with overall market growth and competitive dynamics (no "outside view" calibration)

Source: McKinsey (2002) Postmerger Management Practice client survey; client case studies

**Cost-synergy estimation is better, but there are patterns emerging in the errors**

Mergers achieving stated percentage of expected cost savings, percent $N = 92$




Typical sources of estimation error

- Underestimating one-time costs
- Using benchmarks from noncomparable situations
- Not sanity-checking management estimates against precedent transactions
- Failing to ground estimates in bottom-up analysis (e.g., location-by-location review of overlaps

Source: McKinsey (2002) Postmerger Management Practice client survey; client case studies

# Synergy: Odds of success



- Studies that have focused on synergies have concluded that you are far more likely to deliver cost synergies than growth synergies.
- Synergies that are concrete and planned for at the time of the merger are more likely to be delivered than fuzzy synergies.
- Synergy is much more likely to show up when someone is held responsible for delivering the synergy.
- You are more likely to get a share of the synergy gains in an acquisition when you are a single bidder than if you are one of multiple bidders.

# Lesson 7: For acquisitions to create value, you have to stay disciplined..



1. If you have a successful acquisition strategy, stay focused on that strategy. Don't let size or hubris drive you to "expand" the strategy.
2. Realistic plans for delivering synergy and control have to be put in place before the merger is completed. By realistic, we have to mean that the magnitude of the benefits have to be reachable and not pipe dreams and that the time frame should reflect the reality that it takes a while for two organizations to work as one.
3. The best thing to do in a bidding war is to drop out.
4. Someone (preferably the person pushing hardest for the merger) should be held to account for delivering the benefits.
5. The compensation for investment bankers and others involved in the deal should be tied to how well the deal works rather than for getting the deal done.

# A Really Big Deal! InBev buys SABMiller

**ABInBev (The Acquirer)**
- Incorporated in US
- Largest beer company in the world with revenues of $46 billion
- Strongest in Latin America (Brazil) and US
- History of growing with acquisitions

**SABMiller (The Target)**
- Incorporated in UK
- Second largest brewer in the world with revenues of $22 billion
- Strongest in Africa and Latin America (other than Brazil)
- Owns 58% of MillerCoors, a JV with Molson Beer and other associates.

**Motives for merger**
*1. Global Complementarity*
- Grow AB in Africa
- Grow SAB in Latin America
*2. Consolidation*
- Cost cutting (in Latin America)

*First News Story*
*September 15, 2015*

**Market Capitalization**
ABInBev: $175 billion
SABMiller: $75 billion

*Deal Reached*
*October 13, 2015*

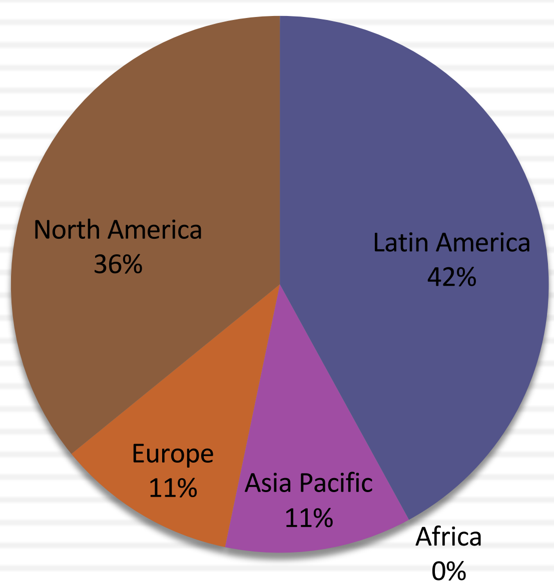
**Market Capitalization**
ABInBev: $183 billion
SABMiller: $100 billion

**Consequences**
- Sell stake in MillerCoors
- Sell Chinese segment of SAB

# The Acquirer (ABInBev)

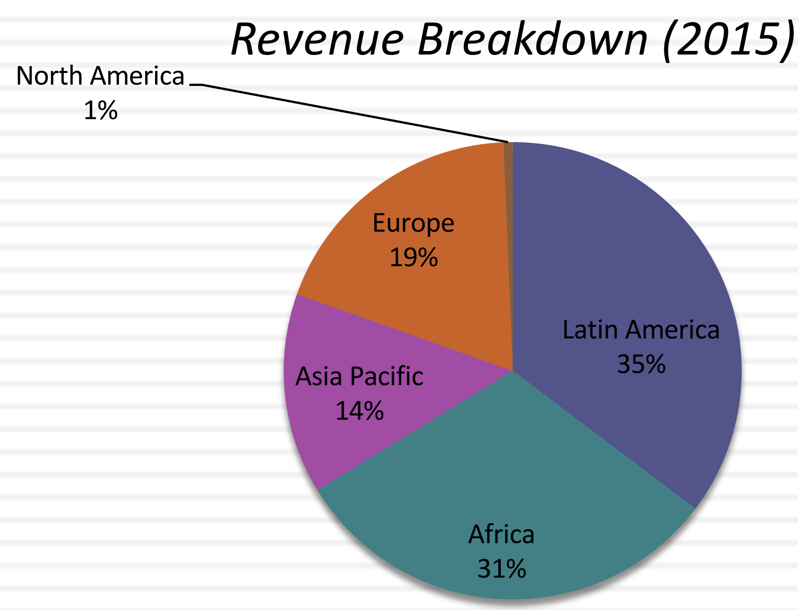
| *Capital Mix* | | *Operating Metrics* | |
|---|---|---|---|
| Interest-bearing Debt | $51,504 | Revenues | $45,762.00 |
| Lease Debt | $1,511 | Operating Income (EBIT) | $14,772.00 |
| Market Capitalization | $173,760 | Operating Margin | 32.28% |
| Debt to Equity ratio | 30.51% | Effective tax rate | 18.00% |
| Debt to Capital ratio | 23.38% | After-tax return on capital | 12.10% |
| Bond Rating | A2 | Reinvestment Rate = | 50.99% |

*Revenue Breakdown (2014)*



# The Target (SABMiller)

| *Capital Mix* | | *Operating Metrics* | |
|---|---|---|---|
| Interest-bearing Debt | $12,550 | Revenues | $22,130.00 |
| Lease Debt | $368 | Operating Income (EBIT) | $4,420.00 |
| Market Capitalization | $75,116 | Operating Margin | 19.97% |
| Debt to Equity ratio | 17.20% | Effective tax rate | 26.40% |
| Debt to Capital ratio | 14.67% | After-tax return on capital | 10.32% |
| Bond Rating | A3 | Reinvestment Rate = | 16.02% |



# Setting up the challenge

- SAB Miller's market capitalization was $75 billion on September 15, 2015, the day ABInBev announced its intent to acquire SABMiller.
- The deal was completed (pending regulatory approval) a month later, with ABInBev agreeing to pay $104 billion for SABMiller.
- Can ABInBev create $29 billion in additional value from this acquisition and if so where will it find the value?
  - The market seems to think so, adding $33 billion in market value to the combined company.

# The Three (Value) Reasons for Acquisitions

- Undervaluation: You buy a target company because you believe that the market is mispricing the company and that you can buy it for less than its "fair" value.
- Control: You buy a company that you believe is badly managed, with the intent of changing the way it is run. If you are right on the first count and can make the necessary changes, the value of the firm should increase under your management
- Synergy: You buy a company that you believe, when combined with a business (or resource) that you already own, will be able to do things that you could not have done as separate entities. This synergy can be
  - Offensive synergy: Higher growth and increased pricing power
  - Defensive synergy: Cost cutting, consolidation & preempting competitors.
  - Tax synergy: Directly from tax clauses or indirectly through dent

# Four numbers to watch

1. Acquisition Price: This is the price at which you can acquire the target company. If it is a private business, it will be negotiated and probably based on what others are paying for similar businesses. If it is a public company, it will be at a premium over the market price.
2. Status Quo Value: Value of the target company, run by existing management.
3. Restructured Value: Value of the target company, with changes to investing, financing and dividend policies.
4. Synergy value: Value of the combined company (with the synergy benefits built in) – (Value of the acquiring company, as a stand alone entity, and the restructured value of the target company)

- The Acid Test
  - Undervaluation: Price for target company < Status Quo Value
  - Control: Price for target company < Restructured Value
  - Synergy: Price for target company < Restructured Value + Value of Synergy

# SAB Miller Status Quo Value

| | *SAB Miller* | *+ Coors JV* | *+ Share of Associates* | *SAB Miller Consolidated* |
|---|---|---|---|---|
| Revenues | $22,130.00 | $5,201.00 | $6,099.00 | |
| Operating Margin | 19.97% | 15.38% | 10.72% | |
| Operating Income (EBIT) | $4,420.00 | $800.00 | $654.00 | |
| Invested Capital | $31,526.00 | $5,428.00 | $4,459.00 | |
| Beta | 0.7977 | 0.6872 | 0.6872 | |
| ERP | 8.90% | 6.00% | 7.90% | |
| Cost of Equity = | 9.10% | 6.12% | 7.43% | |
| After-tax cost of debt = | 2.24% | 2.08% | 2.24% | |
| Debt to Capital Ratio | 14.67% | 0.00% | 0.00% | |
| Cost of capital = | 8.09% | 6.12% | 7.43% | |
| | | | | |
| After-tax return on capital = | 10.33% | 11.05% | 11.00% | |
| Reinvestment Rate = | 16.02% | 40.00% | 40.00% | |
| Expected growth rate= | 1.65% | 4.42% | 4.40% | |
| Number of years of growth | 5 | 5 | 5 | |
| *Value of firm* | | | | |
| PV of FCFF in high growth = | $11,411.72 | $1,715.25 | $1,351.68 | |
| Terminal value = | $47,711.04 | $15,094.36 | $9,354.28 | |
| **Value of operating assets today =** | **$43,747.24** | **$12,929.46** | **$7,889.56** | **$64,566.26** |
| + Cash | | | | $1,027.00 |
| - Debt | | | | $12,918.00 |
| - Minority Interests | | | | $1,183.00 |
| Value of equity | | | | **$51,492.26** |

Price on September 15, 2015: $75 billion > $51.5 billion

# SABMiller: Potential for Control

| | *SABMiller* | *ABInBev* | *Global Alcoholic Beverage Sector* |
|---|---|---|---|
| Pre-tax Operating Margin | 19.97% | 32.28% | 19.23% |
| Effective Tax Rate | 26.36% | 18.00% | 22.00% |
| Pre-tax ROIC | 14.02% | 14.76% | 17.16% |
| ROIC | 10.33% | 12.10% | 13.38% |
| Reinvestment Rate | 16.02% | 50.99% | 33.29% |
| Debt to Capital | 14.67% | 23.38% | 18.82% |

# SABMiller: Value of Control

| | Status Quo Value | Optimal value | |
|---|---|---|---|
| Cost of Equity = | 9.10% | 9.37% | |
| After-tax cost of debt = | 2.24% | 2.24% | |
| Cost of capital = | 8.09% | 8.03% | |
| | | | |
| After-tax return on capital = | 10.33% | 12.64% | |
| Reinvestment Rate = | 16.02% | 33.29% | |
| Expected growth rate= | 1.65% | 4.21% | |
| | | | |
| *Value of firm* | | | |
| PV of FCFF in high growth = | $11,411.72 | $9,757.08 | |
| Terminal value = | $47,711.04 | $56,935.06 | |
| **Value of operating assets today =** | **$43,747.24** | **$48,449.42** | |
| + Cash | $1,027.00 | $1,027.00 | |
| + Minority Holdings | $20,819.02 | $20,819.02 | |
| - Debt | $12,918.00 | $12,918.00 | |
| - Minority Interests | $1,183.00 | $1,183.00 | *Value of Control* |
| **Value of equity** | **$51,492.26** | **$56,194.44** | **$4,702.17** |

Price on September 15, 2015: $75 billion > $51.5 + $4.7 billion

# The Synergies?

| | Inbev | SABMiller | Combined firm (status quo) | Combined firm (synergy) |
|---|---|---|---|---|
| Levered Beta | 0.85 | 0.8289 | 0.84641 | 0.84641 |
| Pre-tax cost of debt | 3.0000% | 3.2000% | 3.00% | 3.00% |
| Effective tax rate | 18.00% | 26.36% | 19.92% | 19.92% |
| Debt to Equity Ratio | 30.51% | 23.18% | 29.71% | 29.71% |
| | | | | |
| Revenues | $45,762.00 | $22,130.00 | $67,892.00 | $67,892.00 |
| Operating Margin | 32.28% | 19.97% | 28.27% | 30.00% |
| Operating Income (EBIT) | $14,771.97 | $4,419.36 | $19,191.33 | $20.368 |
| After-tax return on capital | 12.10% | 12.64% | 11.68% | 12.00% |
| Reinvestment Rate = | 50.99% | 33.29% | 43.58% | 50.00% |
| Expected Growth Rate | 6.17% | 4.21% | 5.09% | 6.00% |

# The value of synergy

| | Inbev | SABMiller | Combined firm (status quo) | Combined firm (synergy) |
|---|---|---|---|---|
| Cost of Equity = | 8.93% | 9.37% | 9.12% | 9.12% |
| After-tax cost of debt = | 2.10% | 2.24% | 2.10% | 2.10% |
| Cost of capital = | 7.33% | 8.03% | 7.51% | 7.51% |
| | | | | |
| After-tax return on capital = | 12.10% | 12.64% | 11.68% | 12.00% |
| Reinvestment Rate = | 50.99% | 33.29% | 43.58% | 50.00% |
| Expected growth rate= | 6.17% | 4.21% | 5.09% | 6.00% |
| | | | | |
| *Value of firm* | | | | |
| PV of FCFF in high growth = | $28,733 | $9,806 | $38,539 | $39,151 |
| Terminal value = | $260,982 | $58,736 | $319,717 | $340,175 |
| Value of operating assets = | $211,953 | $50,065 | $262,018 | $276,610 |

Value of synergy = 276,610 – 262,018 = 14,592 million

# Passing Judgment

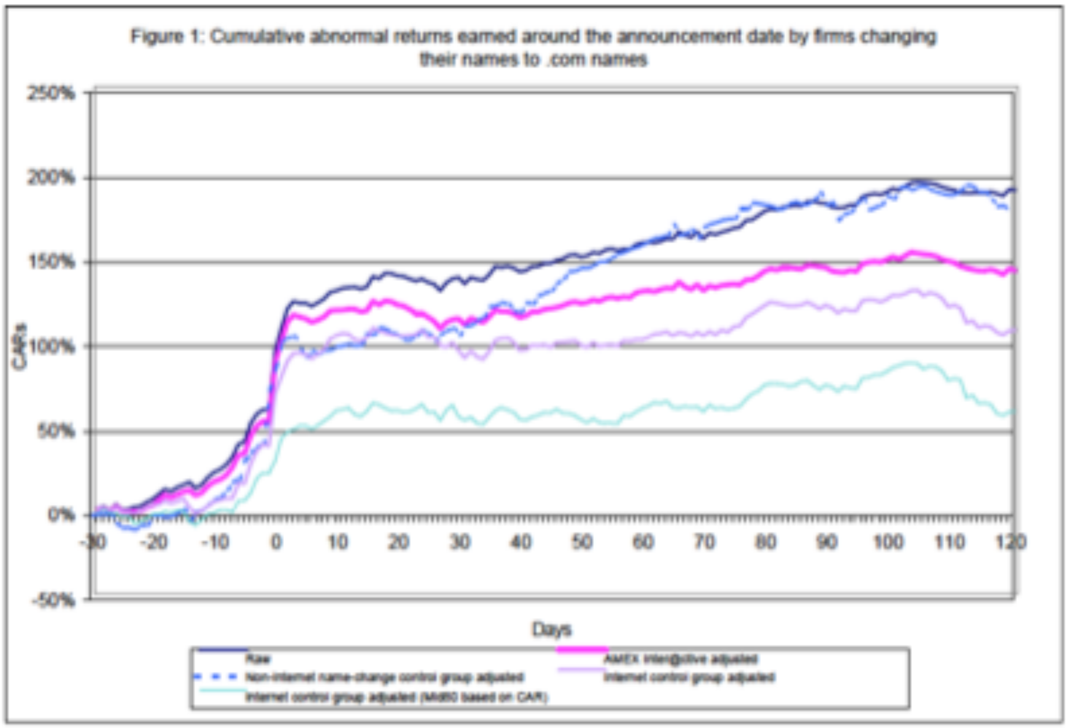
- If you add up the restructured firm value of $56.2 billion to the synergy value of $14.6 billion, you get a value of about $70.8 billion.
- That is well below the $104 billion that ABInBev is planning to pay for SABMiller.
- One of the following has to be true:
  - I have massively under estimated the potential for synergy in this merger (either in terms of higher margins or higher growth).
  - ABInBev has over paid significantly on this deal. That would go against their history as a good acquirer and against the history of 3G Capital as a good steward of capital.

# VALUE ENHANCEMENT AND THE EXPECTED VALUE OF CONTROL: BACK TO BASICS

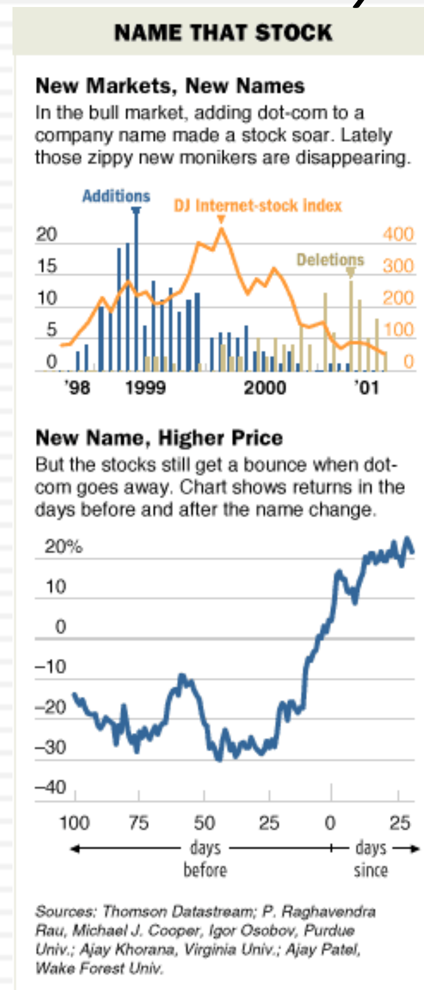
# Price Enhancement versus Value Enhancement



*The market gives…*




*And takes away….*

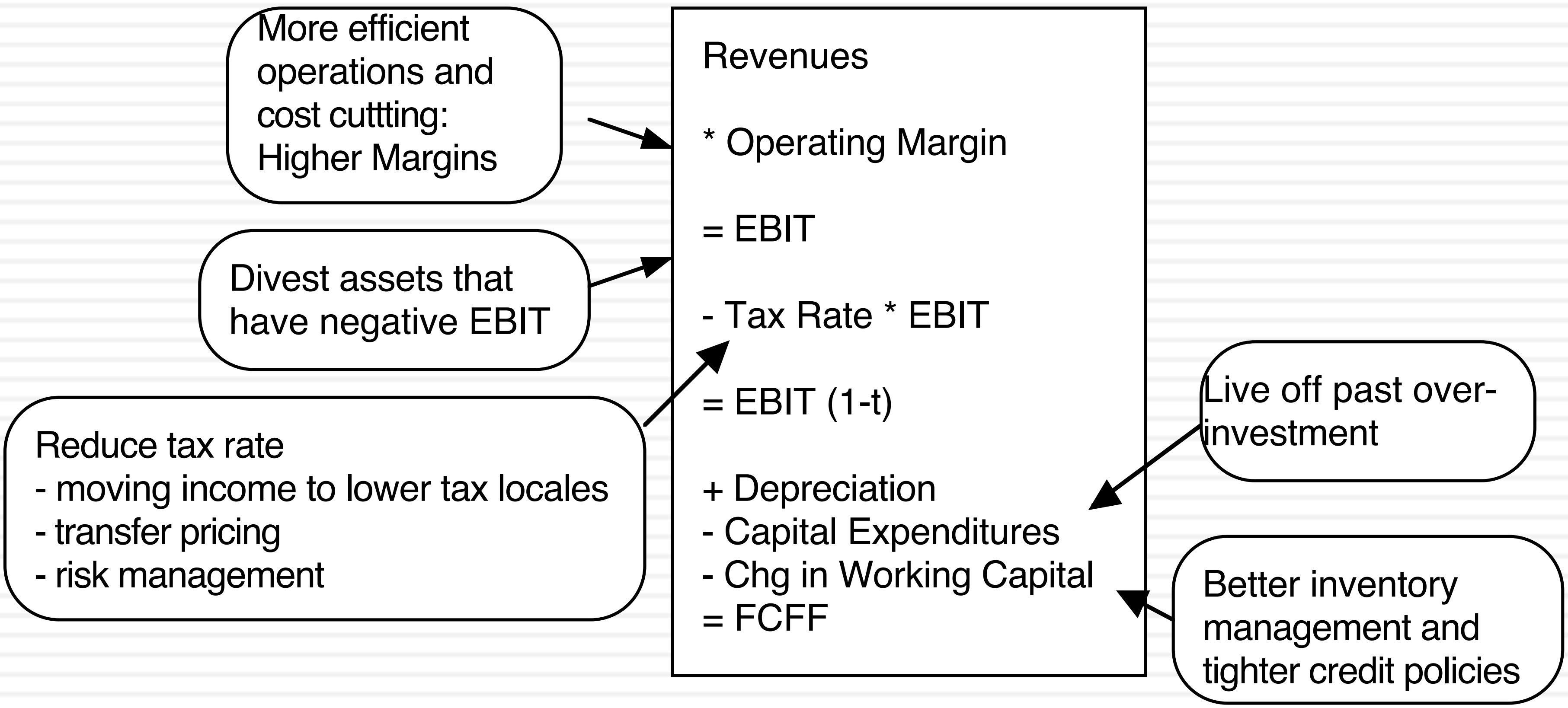


# The Paths to Value Creation



- Using the DCF framework, there are four basic ways in which the value of a firm can be enhanced:
  - The cash flows from existing assets to the firm can be increased, by either
    - increasing after-tax earnings from assets in place or
    - reducing reinvestment needs (net capital expenditures or working capital)
  - The expected growth rate in these cash flows can be increased by either
    - Increasing the rate of reinvestment in the firm
    - Improving the return on capital on those reinvestments
  - The length of the high growth period can be extended to allow for more years of high growth.
  - The cost of capital can be reduced by
    - Reducing the operating risk in investments/assets
    - Changing the financial mix
    - Changing the financing composition

# Value Creation 1: Increase Cash Flows from Assets in Place



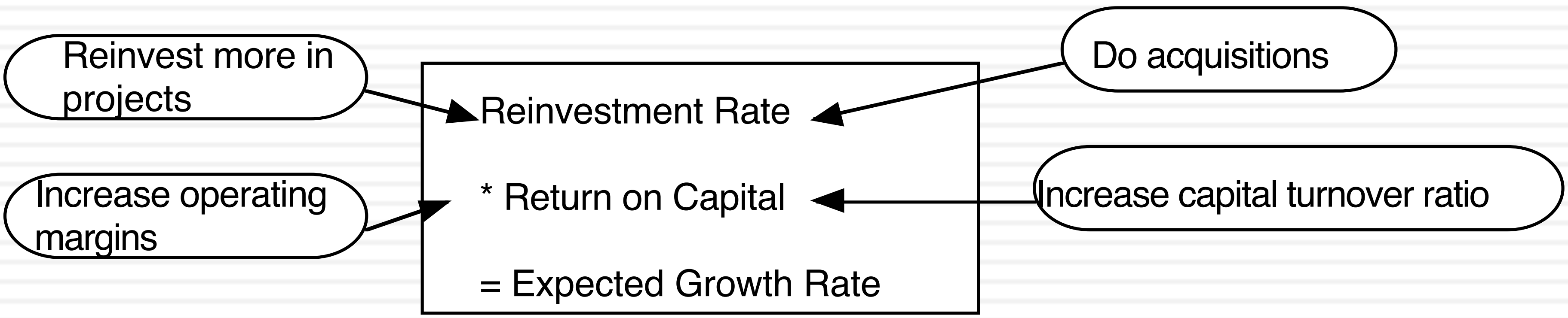
# Value Creation 2: Increase Value from Expected Growth



***Pricing Strategies***

*Price Leader versus Volume Leader Strategies*

*Return on Capital = Operating Margin * Capital Turnover Ratio*



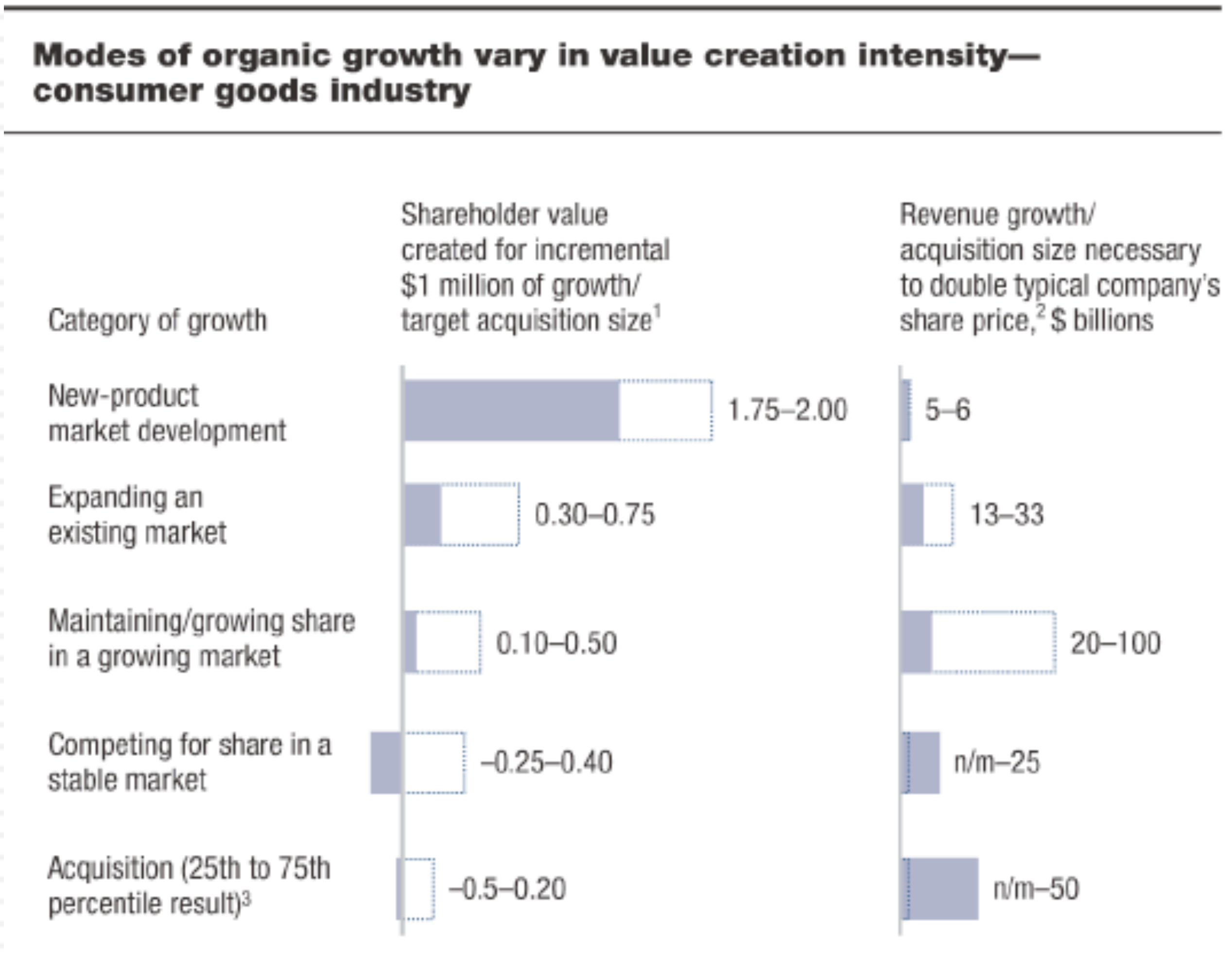

***Game theory***

*How will your competitors react to your moves?*

*How will you react to your competitors' moves?*

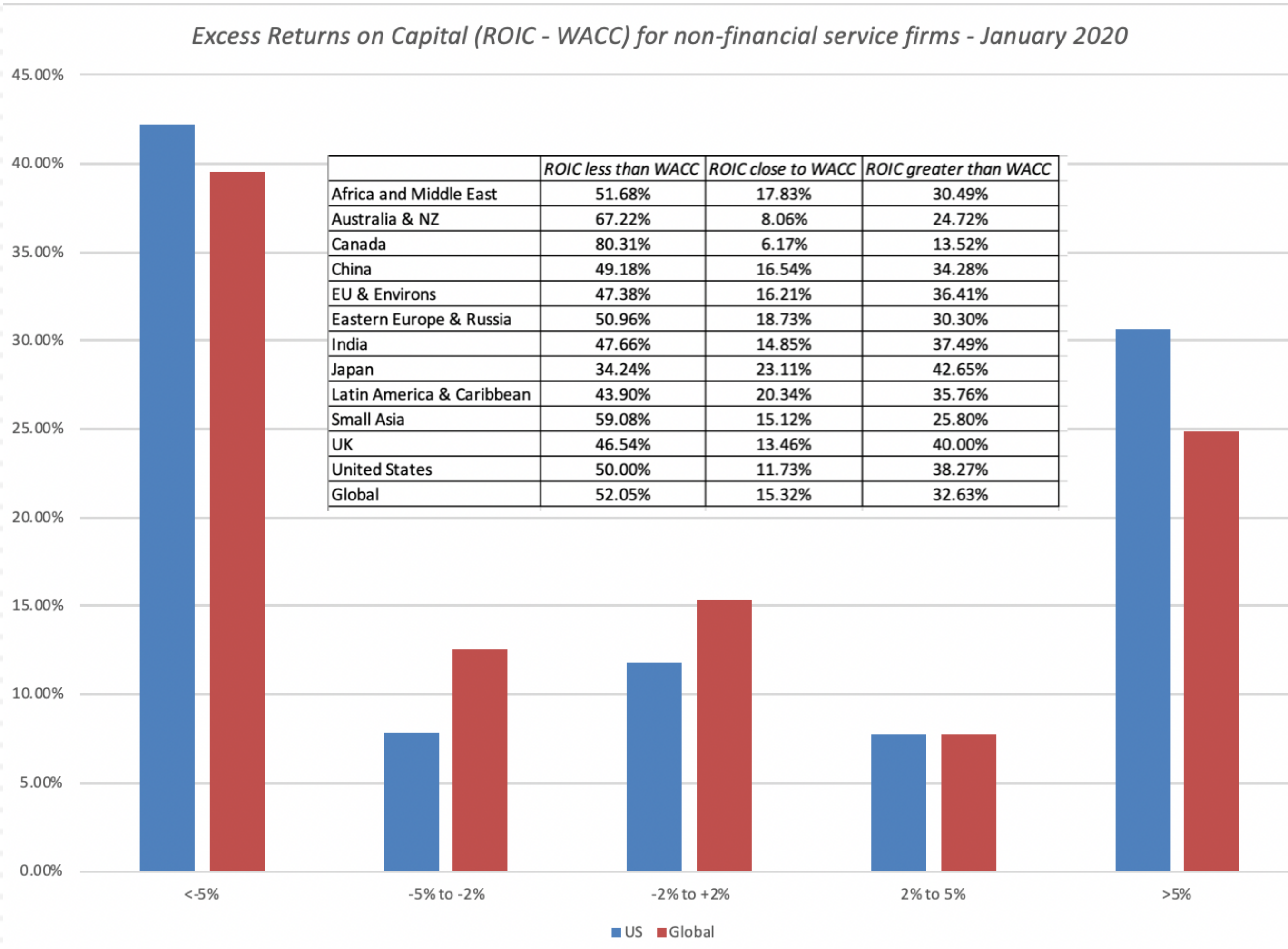
# Value Creating Growth… Evaluating the Alternatives..





# Sometimes, growing less is the answer…

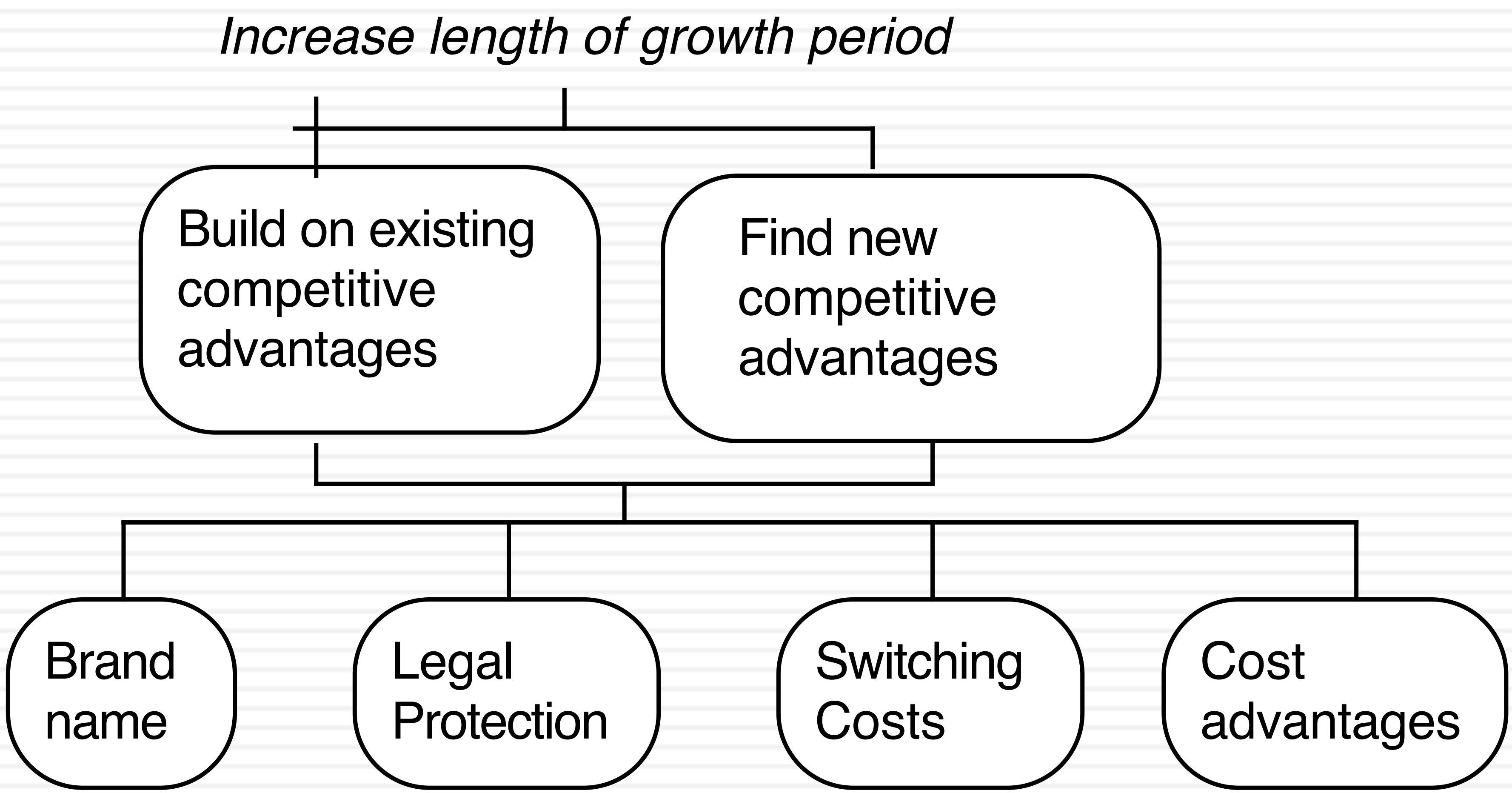





| | *ROIC less than WACC* | *ROIC close to WACC* | *ROIC greater than WACC* |
|---|---|---|---|
| Africa and Middle East | 51.68% | 17.83% | 30.49% |
| Australia & NZ | 67.22% | 8.06% | 24.72% |
| Canada | 80.31% | 6.17% | 13.52% |
| China | 49.18% | 16.54% | 34.28% |
| EU & Environs | 47.38% | 16.21% | 36.41% |
| Eastern Europe & Russia | 50.96% | 18.73% | 30.30% |
| India | 47.66% | 14.85% | 37.49% |
| Japan | 34.24% | 23.11% | 42.65% |
| Latin America & Caribbean | 43.90% | 20.34% | 35.76% |
| Small Asia | 59.08% | 15.12% | 25.80% |
| UK | 46.54% | 13.46% | 40.00% |
| United States | 50.00% | 11.73% | 38.27% |
| Global | 52.05% | 15.32% | 32.63% |

# III. Building Competitive Advantages: Increase length of the growth period





# Value Creation 4: Reduce Cost of Capital